

## EVALUATING PLANTING MATERIAL IN THE FIELD

### Goal

- Be able to establish if the productive palms in the plantation are of good *tenera* type or mixed with *dura*;
- Be able to identify how many *dura* palms there are, if any;
- Be aware of the possibility to increase productivity by finding all unproductive palms and cutting them down;
- Be able to identify if problems with the mill or large price deductions can be expected in the future.

### Standard

- Farmers know exactly what their planting material is;
- If there are *dura* palms, they are marked;
- If there are *pisifera* palms, they are removed.

**Note:** if the plantation was planted by a company (plasma), it is not necessary to check the planting material because plantation companies usually buy and plant good quality seeds only.

### Timing

- As soon as possible after the plantation becomes productive; or
- At the start of the plantation rehabilitation.

### Frequency

Once in the plantation lifetime, at every harvesting round until all the palms have been tested.

### Labour time required

- Testing 20 palms: 1 hour;
- Marking 20 palms: 0.5 hour;
- Testing all palms: 1 hour per harvest until all palms are done.

### Equipment and materials

- Blue and red spray paint
- Bush knife
- Notebook

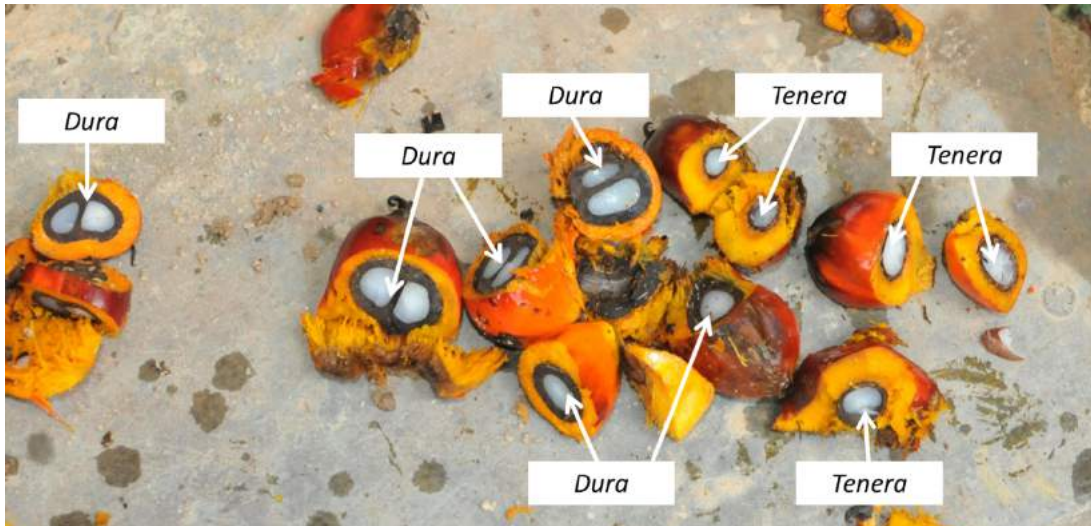
### Who

- Farmers and their family or hired labourers.

## How

If the planting material is of good quality, then less than 1 in 100 palms should be *dura*, and all other palms should be *tenera*. The planting material can be tested by following these steps:

- Step 1.** At the time of harvest, select a palm that has just had a bunch of fruit harvested.
- Step 2.** Collect four (loose) fruits from the bunch.
- Step 3.** Cut the ripe fruits with a machete. Make sure to cut neatly in the middle, otherwise it will be difficult to see the shell thickness correctly.
- Step 4.** Examine the shells of the fruits and determine for each fruit if it is *dura* or *tenera*. *Tenera* fruit, apart from having a thin shell, usually also has some brown-black fibres around the kernel.
- Step 5.** If all fruits in the bunch are *tenera*: mark the palm (for example with blue paint) and then move on to the next palm.
- Step 6.** If a fruit could be a *dura*: look carefully at all four fruits of the bunch to be sure they are *dura*. The fruits can look a bit different in shape and size. If the fruits are definitely *dura*, mark the palm (for example with red paint). **Note:** all fruits in one bunch are always of the same type (*dura* or *tenera*), and all bunches on one palm also!
- Step 7.** Repeat process until 20 palms have been checked.
- Step 8.** If one or more *dura* palms are found, then all palms in the plantation should be tested by following the procedures described above at every harvesting round, marking each *dura* palm immediately with red paint, and each *tenera* palm with blue paint. Keep good track of which palms have already been tested.
- Step 9.** Some palms may not produce any ripe bunches at all; this is especially likely in a plantation with some *dura* palms. If any empty palms are found, take the following steps:
  - Monitor the palms over a **one-year period**;
  - If the palms do not produce any bunches during this time, then they are 'sterile'. These sterile palms may be *pisifera* or they may be sterile for some other reason.
  - Sterile palms should be poisoned or cut down, because they take fertilisers and sunlight but produce nothing!



Mixed planting material with several tenera and dura fruits.

## Data recording

In your plantation notebook, write down:

- Field size
- Number of palms in the plantation
- Number of *tenera* and *dura* palms
- Number of sterile/unproductive palms

For the activity of checking the palms, the table below can be used as an example.

Date	Time	Location	Activity	Input type	Input amount	Input costs	Labour input		Labour costs
							People	Hours	
16/01/13		Field 3	Evaluating 20 palms for <i>dura</i>	Blue and red spray paint	1 each	40000	2	2	40000